

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1. (cancelled).

2. (currently amended) A distillation apparatus ~~according to claim 1~~
~~further~~ comprising:

a container holding water;

a heating section on said container and extending into said water
to boil said water into a vapor;

a condenser section on said container and adjacent to said
heating section to condense said vapor into distilled water;

a thermoelectric section having a Peltier effect device
interposed between said heating section and said condenser section,

said Peltier effect device having one side adjacent and in contact
with said condenser section to transfer heat therefrom and an other
side adjacent to and in contact with said heating section to transfer
heat thereto to boil said water into said vapor and feed said vapor
through said condenser to condense it into said distilled liquid; and

an insulating cover extending across said container and having a
traverse opening, said Peltier effect device of said thermoelectric

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1 section fitting in said traverse opening to place said one side in
2 contiguous contact with said heating section and said other side in
3 contiguous contact with said condenser section.

1 3.(original) A distillation apparatus according to claim 2 wherein
2 said heating section has a tubular-shaped insulating wall extending
3 downward into said water to form an open-ended T-shaped percolating
4 chamber to contain a portion of said water therein.

1 4.(original) A distillation apparatus according to claim 3 wherein
2 said heating section has a heat conductive plate and a rod connected
3 together to extend into said percolating chamber and said water
4 portion.

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1 5.(original) A distillation apparatus according to claim 4 wherein
2 said plate has an inner surface disposed adjacent to and in contact
3 with said Peltier effect device and an outer surface in contact with
4 said water portion in said percolating chamber.

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1 6.(original) A distillation apparatus according to claim 5 wherein
2 said rod orthogonally extends from said plate into said percolating
3 chamber, said vapor forms on the outer surface of said rod and said
4 outer surface of said plate, and said heating section has a plenum
5 collecting said vapor.

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1 7.(currently amended) A distillation apparatus according to claim 6
2 wherein said condenser section has a passageway serpentinely extending
3 through a block of heat conducting material to receive said vapor at
4 an inlet port and to feed said distilled water therefrom at an outlet
5 port.

1 8.(original) A distillation apparatus according to claim 7 wherein
2 heat is transferred to said water by absorbing heat in said one side
3 of said Peltier effect device, conducting said absorbed heat through
4 said Peltier effect device and said plate and said rod, reusing said
5 absorbed heat to partially heat said water portion, and generating
6 heat in said Peltier effect device at said other side and conducting
7 said generated heat to said plate and rod to boil parts of said water
8 portion into said vapor along outer surface of said plate and said
9 rod.

1 9.(canceled).

1 10.(currently amended) A method of distilling water according to claim
2 9 further comprising the steps of:
3 extending a heating section into liquid in a container;
4 heating said liquid to boil said liquid into a vapor;
5 condensing said vapor into a distilled liquid in a condenser
6 section on said container and adjacent to said heating section;

7 transferring heat with a Peltier effect device interposed between
8 said heating section and said condenser section, said Peltier effect
9 device having one side adjacent and in contact with said condenser
10 section to transfer heat therefrom and an other side adjacent to and
11 in contact with said heating section to transfer heat thereto to boil
12 said liquid into said vapor and feed said vapor through said condenser
13 to condense it into said distilled liquid;

14 extending an insulating cover ~~extending~~ across said container;
15 mounting said Peltier effect device in a traverse opening in said
16 insulating cover; and

17 placing said one side of said Peltier effect device in contiguous
18 contact with said heating section and said other side of said Peltier
19 effect device in contiguous contact with said condenser section.

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1 11.(original) A method according to claim 10 further comprising the
2 steps of:

3 extending a tubular-shaped insulating wall downwardly into said
4 liquid to form an open-ended T-shaped percolating chamber; and

5 containing a portion of said liquid in said T-shaped percolating
6 chamber.

1 12.(original) A method according to claim 11 further comprising the
2 step of:

3 connecting a heat conductive plate and rod of said heating
4 section to extend into said percolating chamber and said liquid
5 portion therein.

1 13.(original) A method according to claim 12 further comprising the
2 steps of:

3 placing an inner surface of said plate adjacent to and in contact
4 with said Peltier effect device; and

5 contacting an outer surface of said plate with said liquid
6 portion in said percolating chamber.

1 14.(original) A method according to claim 13 further comprising the
2 steps of:

3 extending said rod orthogonally from said plate into said
4 percolating chamber;

5 forming said vapor on a surface of said rod and said outer
6 surface of said first plate; and

7 collecting said vapor in a plenum of said heating section.

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1 15.(original) A method according to claim 14 further comprising the
2 steps of:

3 extending a passageway serpentinely through a block of heat
4 conducting material of said condenser section;

5 receiving said vapor at an inlet port of said serpentinely
6 extending passageway; and

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7 feeding said distilled liquid from an outlet port of said
8 serpentinely extending passageway.

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1 16.(original) A method according to claim 15 wherein said step of
2 transferring heat to said liquid includes the steps of:

3 absorbing heat in said one side of said Peltier effect device;

4 conducting said absorbed heat through said Peltier effect device

5 and said first plate and rod;

6 reusing said absorbed heat to partially heat said liquid portion;

7 generating heat in said Peltier effect device at said other side;

8 conducting said generated heat to said plate and rod; and

9 boiling parts of said liquid portion into said vapor along outer

10 surfaces of said plate and said rod.

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Amendments to the Drawings:

The attached sheet of drawings includes a change to the only figure of the drawings. This sheet replaces the original sheet of the only figure of the drawings. In the only figure of the drawings an omitted reference character 30' has been added.

Attachments: Replacement Sheet

Annotated Sheet Showing Change In Red